

Appl. No. 09/917,505  
Atty. Docket No. CM2016MC  
Amdt. dated April 7, 2004  
Customer No. 27752

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An adhesive for a disposable human waste management device:  
said disposable human waste management device comprising a bag;  
said bag comprising an aperture and a flange surrounding said aperture;  
said flange comprising a wearer facing surface and a garment facing surface;  
said wearer facing surface comprising an adhesive;  
said adhesive having an initial peel strength ( $P_i$ ) and a final peel strength ( $P_f$ ) after exposure to water;  
wherein said adhesive is formed from a polymer, said polymer being at least partially cross-linked during polymerization by low energy radiation;  
wherein the ratio of  $P_i$  to  $P_f$  is from 2:1 to 1:4; and,  
wherein said adhesive has a water absorption capacity of at least 3% by weight.
2. (Previously Presented) The adhesive of Claim 1, wherein said ratio of  $P_i$  to  $P_f$  is from 2:1.25 to 1:2.
3. (Original) The adhesive of Claim 1, wherein said initial peel strength ( $P_i$ ) of said adhesive ranges from 0.1N/cm to 5.0N/cm.
4. (Original) The adhesive of Claim 3, wherein said initial peel strength ( $P_i$ ) of said adhesive ranges from 0.5N/cm to 3.0N/cm.
5. (Previously Presented) The adhesive of Claim 1, wherein said adhesive is a layer having a thickness  $C$  in mm;  
wherein said adhesive has a viscous modulus at a temperature of 25°C ( $G''_{25}(100 \text{ rad/sec})$ ); and,  
wherein said viscous modulus ( $G''_{25}(100 \text{ rad/sec})$ ) is defined by the equation:  
$$G''_{25} \leq [(7.00 + C) \times 3000] \text{ Pa.}$$
6. (Original) The adhesive of Claim 5, wherein said viscous modulus ( $G''_{25}(100 \text{ rad/sec})$ ) is defined by the equation:

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$$G''_{25} \leq [(5.50 + C) \times 1700] \text{ Pa.}$$

7. (Original) The adhesive of Claim 1, wherein:  
said adhesive has an elastic modulus at a temperature of 37°C ( $G'_{37}(1 \text{ rad/sec})$ ), and a viscous modulus at a temperature of 37°C ( $G''_{37}(1 \text{ rad/sec})$ );  
wherein  $G'_{37}(1 \text{ rad/sec})$  ranges from 500 Pa to 20000 Pa;  
wherein  $G''_{37}(1 \text{ rad/sec})$  ranges from 100 Pa to 15000 Pa; and,  
wherein the ratio  $G'_{37}(1 \text{ rad/sec}) / G''_{37}(1 \text{ rad/sec})$  ranges from 1 to 30.
8. (Original) The adhesive of Claim 7, wherein:  
said elastic modulus ( $G'_{37}(1 \text{ rad/sec})$ ) ranges from 700 Pa to 15000 Pa; and,  
wherein said viscous modulus ( $G''_{37}(1 \text{ rad/sec})$ ) ranges from 100 Pa to 10000 Pa.
9. (Original) The adhesive of Claim 8, wherein:  
said elastic modulus  $G'_{37}(1 \text{ rad/sec})$  ranges from 1000 Pa to 10000 Pa; and,  
wherein said viscous modulus  $G''_{37}(1 \text{ rad/sec})$  ranges from 300 Pa to 5000 Pa.
10. (Previously Presented) The adhesive of Claim 1, wherein said adhesive comprises:  
a polymer selected from the group consisting of polyacrylics, sulphonated polymers, polyvinyl alcohols, polyvinyl pyrrolidone, polyethylene oxide, and mixtures thereof; and,  
a plasticizer selected from the group consisting of polyhydric alcohols, polyethylene glycols, glycerols, sorbitols, water, and combinations thereof.
11. (Original) The adhesive of Claim 10, wherein said adhesive is a hydrophilic-hydrophobic mixed phase adhesive.
12. (Original) The adhesive of Claim 11, wherein the ratio of said hydrophilic components to said hydrophobic components ranges from 5:1 to 1:5.
13. (Original) The adhesive of Claim 10, wherein the ratio of said polymer to said plasticizer ranges between 1:100 and 100:1.
14. (Original) The adhesive of Claim 13, wherein the ratio of said polymer to said plasticizer ranges between 50:1 and 1:50.

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15. (Canceled) The adhesive of Claim 1, wherein said disposable human waste management device is a diaper.
16. (Canceled) The adhesive of Claim 1 wherein said bag further comprises a multi-layered structure having an outer layer.
17. (Canceled) The adhesive of Claim 16 wherein said outer layer is a non-woven material.
18. (Canceled) The adhesive of Claim 17 wherein said non-woven outer layer is treated with a hydrophobic active surface material.
19. (Original) The adhesive of Claim 1 wherein said adhesive is applied to said wearer facing surface at a basis weight from 20 g/m<sup>2</sup> to 2500 g/m<sup>2</sup>.